

EAST Search History (Prior Art)

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|---|--|------------------|---------|------------------|
| L7 | 4519 | (porous with bead) and (fiber or fibre or fibril) | US-PGPUB; USPAT | OR | ON | 2011/03/16 09:20 |
| L8 | 226 | 7 and (network with structure) | US-PGPUB; USPAT | OR | ON | 2011/03/16 09:20 |
| L9 | 191 | 8 and (absorb\$4 or adsorb\$4) | US-PGPUB; USPAT | OR | ON | 2011/03/16 09:21 |
| L10 | 4 | 8 and (ion near2 (absorb\$4 or adsorb\$4)) | US-PGPUB; USPAT | OR | ON | 2011/03/16 09:21 |
| L11 | 8 | ("4110529" "4904426" "4940734" "4985468" "5021462" "5047437" "5314923").PN. OR ("6689465").URPN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2011/03/16 09:41 |
| L12 | 25 | ("4094848" "4100149" "4425237" "4582860" "4623706" "4693985" "4940734" "5047437").PN. OR ("5314923").URPN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2011/03/16 09:45 |
| S1 | 59 | "187646" | US-PGPUB; USPAT; JPO; DERWENT | OR | OFF | 2010/03/20 11:22 |
| S2 | 2 | "2009187646" | US-PGPUB; USPAT; JPO; DERWENT | OR | OFF | 2010/03/20 11:41 |
| S3 | 2 | "09187646" | US-PGPUB; USPAT; JPO; DERWENT | OR | OFF | 2010/03/20 11:41 |
| S4 | 4 | "5895796" | US-PGPUB; USPAT; JPO; DERWENT | OR | OFF | 2010/03/20 11:43 |
| S5 | 1 | "20070128424" | US-PGPUB; USPAT | OR | OFF | 2010/03/20 11:44 |
| S6 | 2 | "6689465" | US-PGPUB; USPAT | OR | OFF | 2010/03/20 12:13 |
| S7 | 7 | (por\$4 with absorbent) and (fibril with por\$4) | US-PGPUB; USPAT | OR | OFF | 2010/11/08 11:35 |
| S8 | 74 | (por\$4 with absorbent) and (fibril with por\$4) | US-PGPUB; USPAT | OR | ON | 2010/11/08 11:36 |
| S9 | 30 | S8 and (polyvinylidene or PVDF or polyacrylonitrile or PAN) | US-PGPUB; USPAT | OR | ON | 2010/11/08 11:37 |
| S12 | 25 | S9 and (bead or microsphere) | US-PGPUB; USPAT | OR | ON | 2010/11/08 11:38 |

EAST Search History (Prior Art)

| | | | | | | |
|-----|------|--|------------------------------|----|-----|------------------|
| S13 | 1 | S12 and (ion with absorb\$4) | US-PGPUB; USPAT | OR | ON | 2010/11/08 11:39 |
| S14 | 62 | (omori near2 akihiro) or (shimizu near2 tadashi) | US-PGPUB; USPAT | OR | ON | 2010/11/08 11:39 |
| S15 | 1 | S14 and (ion with absorb\$4) | US-PGPUB; USPAT | OR | ON | 2010/11/08 11:40 |
| S16 | 3 | S14 and (fibril with por\$4) | US-PGPUB; USPAT | OR | ON | 2010/11/08 11:40 |
| S17 | 8 | ("4110529" "4904426" "4940734" "4985468" "5021462" "5047437" "5314923").PN. OR ("6689465").URPN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2010/11/08 11:41 |
| S18 | 4 | S17 and (fibril or fiber) | US-PGPUB; USPAT; USOCR | OR | ON | 2010/11/08 11:43 |
| S19 | 11 | "4486549" | US-PGPUB; USPAT; USOCR | OR | ON | 2010/11/08 13:06 |
| S21 | 1908 | (porous with bead) and ((fiber or fibril) with (pore or porous)) | US-PGPUB; USPAT; USOCR | OR | ON | 2010/11/08 13:09 |
| S23 | 432 | S21 and (polyvinylidene or PVDF or polyacrylonitrile) | US-PGPUB; USPAT | OR | ON | 2010/11/08 13:09 |
| S24 | 162 | S23 and (titanium or tin or zirconium) | US-PGPUB; USPAT | OR | OFF | 2010/11/08 13:25 |
| S25 | 1 | S24 and ((titanium or tin or zirconium) same (absorbent or (absorb\$4 with material))) | US-PGPUB; USPAT | OR | OFF | 2010/11/08 13:26 |
| S26 | 22 | S24 and ((titanium or tin or zirconium) same (absorb\$4)) | US-PGPUB; USPAT | OR | OFF | 2010/11/08 13:27 |
| S27 | 6 | S26 and (bead) | US-PGPUB; USPAT | OR | OFF | 2010/11/08 13:28 |
| S28 | 0 | (mori near2 motoya) | US-PGPUB; USPAT | OR | OFF | 2010/11/08 14:31 |
| S29 | 15 | (motoya) and (ion with absorb\$4) | US-PGPUB; USPAT | OR | OFF | 2010/11/08 14:32 |
| S30 | 11 | S29 and (fiber or fibril) | US-PGPUB; USPAT | OR | ON | 2010/11/08 14:34 |
| S31 | 3 | S29 and ((fiber or fibril) same porous) | US-PGPUB; USPAT | OR | ON | 2010/11/08 14:34 |
| S32 | 7 | ("4235972" "4400305" "4771080" "4868055").PN. OR ("5895796").URPN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2010/11/08 14:35 |
| S33 | 12 | ("2211664" "4144373" "4187187" "4362626").PN. OR ("4400305").URPN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2010/11/08 14:45 |
| S34 | 16 | ("2768264" "4009141" "4066394" "4171283" "4220553").PN. OR ("4362626").URPN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2010/11/08 14:47 |

EAST Search History (Prior Art)

| | | | | | | |
|-----|------|--|-----------------|----|-----|------------------|
| S35 | 2766 | (polyvinylidene or PVDF or polyacrylonitrile or ethylene near2 vinylalcohol or EVOH) same por\$4 same (fiber or fibril) | US-PGPUB; USPAT | OR | ON | 2010/11/08 14:55 |
| S36 | 1701 | (polyvinylidene or PVDF or polyacrylonitrile or ethylene near2 vinylalcohol or EVOH) same (por\$4 with (fiber or fibril)) | US-PGPUB; USPAT | OR | ON | 2010/11/08 14:55 |
| S37 | 1121 | (polyvinylidene or PVDF or polyacrylonitrile or ethylene near2 vinylalcohol or EVOH) same (porous with (fiber or fibril)) | US-PGPUB; USPAT | OR | ON | 2010/11/08 14:55 |
| S38 | 24 | S37 and ((titanium or tin or zirconium) same (absorb\$4)) | US-PGPUB; USPAT | OR | OFF | 2010/11/08 14:56 |
| S39 | 616 | (polyvinylidene or PVDF or polyacrylonitrile or ethylene near2 vinylalcohol or EVOH) with (porous with (fiber or fibril)) | US-PGPUB; USPAT | OR | ON | 2010/11/08 14:58 |
| S40 | 236 | S39 and (porous near2 (fibril or fiber)) | US-PGPUB; USPAT | OR | ON | 2010/11/08 14:59 |
| S41 | 3 | S40 and ((ion or cation or anion) with absorb\$4) | US-PGPUB; USPAT | OR | ON | 2010/11/08 15:00 |
| S42 | 1315 | ((titanium or tin or zirconium) same (absorb\$4) same (anion or cation or ion)) | US-PGPUB; USPAT | OR | OFF | 2010/11/09 09:43 |
| S43 | 232 | S42 and (polyvinylidene or PVDF or polyacrylonitrile or ethylene near2 vinylalcohol or EVOH) | US-PGPUB; USPAT | OR | ON | 2010/11/09 09:44 |
| S44 | 14 | S43 and (porous near2 (fiber or fibril)) | US-PGPUB; USPAT | OR | ON | 2010/11/09 09:44 |
| S45 | 54 | S43 and (absorbent) | US-PGPUB; USPAT | OR | ON | 2010/11/09 09:47 |
| S46 | 696 | (ion or anion or cation) near2 absorbent | US-PGPUB; USPAT | OR | ON | 2010/11/09 09:50 |
| S47 | 80 | S46 and (polyvinylidene or PVDF or polyacrylonitrile or ethylene near2 vinylalcohol or EVOH) | US-PGPUB; USPAT | OR | ON | 2010/11/09 09:50 |
| S48 | 17 | S46 and ((polyvinylidene or PVDF or polyacrylonitrile or ethylene near2 vinylalcohol or EVOH) with (fiber or fibril)) | US-PGPUB; USPAT | OR | ON | 2010/11/09 09:52 |
| S49 | 223 | (porous near2 (polyacrylonitrile or "PAN")) | US-PGPUB; USPAT | OR | ON | 2010/11/09 09:57 |
| S50 | 5 | S49 and ((ion or anion or cation) near2 absorb\$4) | US-PGPUB; USPAT | OR | ON | 2010/11/09 09:57 |
| S51 | 140 | (porous near2 (polyacrylonitrile)) | US-PGPUB; USPAT | OR | ON | 2010/11/09 10:00 |
| S52 | 1044 | (porous near2 (polyacrylonitrile or polysulfone or polyvinylidene near2 fluoride or ethylene near2 vinylalcohol or EVOH)) | US-PGPUB; USPAT | OR | ON | 2010/11/09 10:01 |
| S53 | 265 | (porous near2 (polyacrylonitrile or polysulfone or polyvinylidene near2 fluoride or ethylene near2 vinylalcohol or EVOH) same (fiber or fibril)) | US-PGPUB; USPAT | OR | ON | 2010/11/09 10:01 |

EAST Search History (Prior Art)

| | | | | | | |
|-----|-----|--|--------------------|----|-----|------------------|
| S54 | 5 | S53 and ((cation or ion or anion) with absorb\$5) | US-PGPUB; USPAT | OR | OFF | 2010/11/09 10:03 |
| S55 | 9 | (porous near2 (polyacrylonitrile or polysulfone or polyvinylidene near2 fluoride or ethylene near2 vinylalcohol or EVOH)) same absorbent | US-PGPUB; USPAT | OR | ON | 2010/11/09 10:06 |
| S56 | 39 | (porous near2 (polyacrylonitrile or polysulfone or polyvinylidene near2 fluoride or ethylene near2 vinylalcohol or EVOH)) same (surface near2 area) | US-PGPUB; USPAT | OR | ON | 2010/11/09 10:07 |
| S57 | 180 | (porous near2 (polyacrylonitrile or polysulfone or polyvinylidene near2 fluoride or ethylene near2 vinylalcohol or EVOH)) with (fiber or fibril) | US-PGPUB; USPAT | OR | ON | 2010/11/09 10:08 |
| S58 | 5 | ((porous near2 (polyacrylonitrile or polysulfone or polyvinylidene near2 fluoride or ethylene near2 vinylalcohol or EVOH)) with (fiber or fibril)) same (absorb\$4 or adsorb\$4) | US-PGPUB; USPAT | OR | ON | 2010/11/09 10:11 |
| S59 | 8 | "5418284" | US-PGPUB; USPAT | OR | OFF | 2010/11/10 08:35 |
| S60 | 62 | (omori near2 akihiro) or (shimizu near2 tadashi) | US-PGPUB; USPAT | OR | ON | 2010/11/10 08:44 |

EAST Search History (Interference)

| | | | | | |
|--|--|----------------------------------|--|--|--|
| | | < This search history is empty > | | | |
|--|--|----------------------------------|--|--|--|